

AMENDMENTS TO THE CLAIMS

Claims pending

- At time of the Action: Claims 2-27, 29-48 and 50-58.
- After this Response: Claims 2, 4-27, 29-47, 50-52, 54 and 56-67.

Canceled or Withdrawn claims: 1, 3, 28, 48, 49, 53 and 55.

Amended claims: 4, 5, 6, 15, 17, 24, 26, 29, 31, 36, 41, 42, 54, 56 and 58.

New claims: 59-67.

1. (CANCELED).
2. (PREVIOUSLY PRESENTED) The cellular phone of claim 5 further comprising a context service module that is configured to receive information from multiple different context providers.
3. (CANCELED).
4. (CURRENTLY AMENDED) The cellular phone of claim 5 ~~further comprising one or more hierarchical traversable tree structures on the phone, the tree structures comprising individual nodes each of which being associated with a phone context, the processors being~~ further configured to automatically determine ~~a~~ the current context by traversing at least one ~~node on one of the trees~~ of the data structure.

5. (CURRENTLY AMENDED) A cellular phone comprising:

one or more processors configured to:

receive information that pertains to a current context of the cellular phone;

determine the current context based on the information and a hierarchy data structure of attributes, wherein each node of the data structure is capable of corresponding to a physical or logical context;

modify at least one behavior of the cellular phone responsive to the current context, wherein at least one of said one behavior is defined by a third party; and

an application program interface that is configured to wirelessly receive information that is associated with the phone's context.

6. (CURRENTLY AMENDED) A method of operating a cellular phone comprising:

wirelessly receiving, with the cellular phone, information that pertains to either a physical or logical context of the cellular phone, the cellular phone being configured to receive said information from different types of context providers that provide different forms of information;

responsive to said receiving and using only the cellular phone and its associated on-board componentry, determining a ~~cellular phone~~ current context based upon the information and a hierarchy data structure of attributes; and

modifying at least one behavior associated with the cellular phone responsive to the current context, wherein at least one of said one behavior is defined by a third party.

7. (ORIGINAL) The method of claim 6, wherein the behavior pertains to whether the phone is on or off.
8. (ORIGINAL) The method of claim 6, wherein the behavior pertains to operation of a cellular phone ringer.
9. (ORIGINAL) The method of claim 6, wherein the behavior pertains to whether the cellular phone is in a vibration mode.
10. (ORIGINAL) The method of claim 6, wherein the behavior pertains to a ringer pitch.
11. (ORIGINAL) The method of claim 6, wherein the behavior pertains to forwarding calls.
12. (ORIGINAL) The method of claim 6, wherein said modifying comprises using one or more cellular phone settings that are resident on the cellular phone to modify the cellular phone's settings.
13. (ORIGINAL) The method of claim 6, wherein said receiving comprises receiving cellular phone setting information that is to be used to modify the cellular phone's behavior.

14. (ORIGINAL) A cellular phone programmed to implement the method of claim 6.
15. (CURRENTLY AMENDED) One or more readable media having readable instructions thereon which, when executed by a cellular phone, cause the cellular phone to:
- wirelessly receive information from different context source information types that provide different forms of information that pertains to a context of the cellular phone; ~~and~~
- responsive to receiving the information, determine the cellular phone context and modify at least one behavior associated with the cellular phone based on the information and a hierarchy data structure of attributes, wherein at least one of said one behavior is defined by a third party and wherein each node of the data structure being capable of corresponding to either a physical or logical context.
16. (ORIGINAL) A cellular phone embodying the computer-readable media of claim 15.
17. (CURRENTLY AMENDED) A cellular phone comprising:
- multiple different types of location providers which collectively are configured to receive different forms of location information that can be used by the cellular phone to ascertain its location; and
- one or more processors configured to:
- receive information associated with a current location of the cellular phone;
- and

modify at least one behavior of the cellular phone responsive to the information and a hierarchy tree structure associating physical or logical locations to a plurality of attributes, wherein at least one of said one behavior is defined by a third party.

18. (ORIGINAL) The cellular phone of claim 17, wherein the information comprises cellular phone settings.

19. (ORIGINAL) The cellular phone of claim 17, wherein the one or more processors are configured to modify the one behavior by turning the phone on or off.

20. (ORIGINAL) The cellular phone of claim 17, wherein the one or more processors are configured to modify the one behavior by adjusting a ringer pitch on the phone.

21. (ORIGINAL) The cellular phone of claim 17, wherein the one or more processors are configured to modify the one behavior by turning a cellular phone ringer on or off.

22. (ORIGINAL) The cellular phone of claim 17, wherein the one or more processors are configured to modify the one behavior by placing the phone in a vibration mode.

23. (ORIGINAL) The cellular phone of claim 17, wherein the one or more processors are configured to modify the one behavior by forwarding one or more calls to a user-provided telephone number.

24. (CURRENTLY AMENDED) A cellular phone comprising:

receiving means configured to wirelessly receive multiple different forms of information that pertains to a current location of a cellular phone and use said multiple different forms of information to ascertain the current location; and

means to modify at least one behavior associated with the cellular phone responsive to ~~said information~~ the current location and a hierarchy data structure associating physical or logical locations to a plurality of attributes, wherein at least one of said one behavior is defined by a third party.

25. (ORIGINAL). The cellular phone of claim 24, wherein said information pertains to cellular phone settings that are associated with the current location.

26. (CURRENTLY AMENDED) The cellular phone of claim 24, wherein said information pertains to a defined location type associated with multiple different locations, of which the location is an instance.

27. (ORIGINAL) The cellular phone of claim 24, wherein said means to modify comprises means to change the cellular phone's behavior when it is no longer at the current location.

28. (CANCELED).

29. (CURRENTLY AMENDED) A method of managing cellular phone behavior comprising:

defining one or more cellular phone behaviors for ~~a given~~ each of a plurality of location types, wherein at least one behavior is defined by a third party and wherein each location type is associated with one or more different physical or logical locations; and

wirelessly transmitting information to cellular phones within ~~that~~ an instance of a location that permits cellular phones to automatically modify their behavior while in that location, wherein said transmitting information ~~comprises transmitting information that is~~ associated with a particular location type ~~that has attributes that define a cellular phone behavior~~.

30. (PREVIOUSLY PRESENTED) The method of claim 29, wherein said transmitting information comprises transmitting information pertaining to cellular phone settings.

31. (CURRENT AMENDED) A method of managing cellular phone behavior comprising:

providing one or more transmitters that are configured to transmit information that permits cellular phones to automatically modify at least one behavior defined by a third party, at least a portion of the information pertaining to one or more assigned class types, wherein individual ones of the class types of which are associated with various attributes that define the behavior of cellular phones and wherein individual ones of the class types define high level abstractions of either physical or logical locations;

placing the one or more transmitters in a location where a particular cellular phone behavior is desired; and

transmitting information using said one or more transmitters.

32. (ORIGINAL) The method of claim 31, wherein the behavior comprises whether the cellular phone is on or off.

33. (ORIGINAL) The method of claim 31, wherein the behavior pertains to the cellular phone's ringer.

34. (ORIGINAL) The method of claim 31, wherein the behavior pertains to the pitch of the cellular phone's ringer.

35. (ORIGINAL) The method of claim 31, wherein the behavior pertains to call forwarding.

36. (CURRENTLY AMENDED) A method of managing cellular phone behavior comprising:

defining one or more class types, wherein each class type of which can be associated with defines a high level abstraction of one or more different physical or logical a-locations for which a particular cellular phone behavior is desired; and

associating attributes with the one or more class types, the attributes defining cellular phone behavior.

37. (ORIGINAL) The method of claim 36, wherein the behavior pertains to whether the cellular phone is to be on or off.

38. (ORIGINAL) The method of claim 36, wherein the behavior pertains to whether the cellular phone's ringer is to be on or off.

39. (ORIGINAL) The method of claim 36, wherein the behavior pertains to the pitch of the cellular phone's ringer.

40. (ORIGINAL) The method of claim 36, wherein the behavior pertains to automatically forwarding telephone calls.

41. (CURRENTLY AMENDED) A method of managing cellular phone behavior comprising:

defining one or more class types, wherein each class type is an abstraction of one or more different physical or logical locations~~each of which can be associated with a location for which a particular cellular phone behavior is desired;~~

associating attributes with each of the one or more class types, the attributes defining cellular phone behavior; and

associating a class type with an instance of a location for which a particular cellular phone behavior is desired.

42. (CURRENTLY AMENDED) A method of managing cellular phone behavior comprising:

defining one or more class types, wherein each ~~associating a class type with a~~ is an abstraction of one or more physical or logical locations for which a particular cellular phone behavior is desired, the class type having attributes that define the cellular phone's behavior; and

wirelessly transmitting information pertaining to ~~the~~ a given class type for reception by cellular phones in the location, the information being configured to be used by cellular phones to automatically adjust one or more behaviors.

43. (ORIGINAL) The method of claim 42, wherein said associating comprises providing a transmitter at the location that is configured to transmit the information.

44. (ORIGINAL) The method of claim 42, wherein the behavior is defined by cellular phone settings.

45. (ORIGINAL) The method of claim 42, wherein the behavior pertains to whether the cellular phone is on or off.

46. (ORIGINAL) The method of claim 42, wherein the behavior pertains to whether the cellular phone's ringer is on or off.

47. (ORIGINAL) The method of claim 42, wherein the behavior pertains to call forwarding.

48-49. (CANCELED).

50. (PREVIOUSLY PRESENTED) A method of operating a cellular phone comprising:
providing a cellular phone; and
determining, with the cellular phone, a present cellular phone location wherein said determining comprises:

receiving location information;

accessing one or more hierarchical tree structures having nodes, each node

being capable of corresponding to either a physical or logical location; and

using the location information to traverse at least portions of the one or more tree structures to ascertain the present location.

51. (PREVIOUSLY PRESENTED) A cellular phone comprising:
- one or more computer-readable media;
 - one or more hierarchical traversable tree structures resident on the computer-readable media, the tree structures comprising individual nodes, each of which is capable of being associated with either a physical or logical phone context; and
 - one or more processors configured to:
 - receive information that pertains to a current context of the cellular phone;
 - automatically determine the current context based on the information by traversing at least one node on one of the trees; and
 - modify at least one behavior of the cellular phone responsive to the current context.

52. (PREVIOUSLY PRESENTED) The cellular phone of claim 51 further comprising a context service module that is configured to receive information from multiple different context providers.

53. (CANCELED).

54. (CURRENTLY AMENDED) A cellular phone comprising:

a context service module that is configured to receive different forms of information from multiple different types of context providers; and

one or more processors associated with the context service module and configured to:

receive information that pertains to a current context of the cellular phone;

determine the current context based on the information and a hierarchy data tree of attributes, wherein levels of the hierarchy tree of attributes are arranged in one or more classes selected from a group consisting of a political abstraction, an administrative abstraction, and organization abstraction, a geographical abstraction, an infrastructure abstraction, a public place abstraction and a private entity abstraction; and

modify at least one behavior of the cellular phone responsive to the current context, wherein at least one of said one behavior is defined by a third party.

55. (CANCELLED).

56. (CURRENTLY AMENDED) The cellular phone of claim 54 further comprising ~~one or more hierarchical traversable tree structures on the phone, the tree structures comprising individual nodes each of which being associated with a phone context~~, the processors being configured to automatically determine a the context by traversing at least one node ~~on one of the hierarchy data trees of attributes~~.

57. (PREVIOUSLY PRESENTED) The cellular phone of claim 54 further comprising an application program interface that is configured to wirelessly receive information that is associated with the phone's context.

58. (CURRENTLY AMENDED) A cellular phone comprising:
location provider means for receiving different forms of location information;
means for ascertaining a current location from the different forms of location information;
means for determining a context from the current location and a hierarchy tree structure, wherein the hierarchy tree structure comprises:
a plurality of nodes, wherein each node is linked to one or more other nodes;
a plurality of attributes corresponding to either a physical or logical context,
wherein each attribute is associated with at least one node; and
means for modifying at least one behavior associated with the cellular phone responsive to ~~ascertaining said location~~ the context, ~~wherein at least one of said one behavior is defined by a third party.~~

59. (NEW) The method of claim 6, wherein the information comprises one or more parameters selected from a group consisting of GPS specific information, a longitude, a latitude, internet protocol specific information, a cell identifier, a user entry, a city, a street, a building, network metadata, subnet and site information and a location type.

60. (NEW) The method of claim 6, wherein the hierarchy data structure of attributes comprises:

a plurality of nodes, wherein each node is linked to one or more other nodes; and
a plurality of attributes, wherein each attribute is associated with at least one node.

61. (NEW) The method of claim 60, wherein the nodes are arranged in one or more plurality of classes selected from a group of abstractions consisting of a political abstraction, an administrative abstraction, a geographical abstraction, an infrastructure abstraction, a public place abstraction, a physical location abstraction and a logical location abstraction.

62. (NEW) The method of claim 60, wherein determining the current context comprises mapping the information to a given node in the hierarchy data structure of attributes.

63. (NEW) The method of claim 62, wherein each node is linked to one or more other nodes to form a plurality of branches having a root node.

64. (NEW) The method of claim 63, wherein determining the current context further comprises:

traversing multiple nodes in a particular branch containing the given node; and
ascertaining one or more of the attributes of the traversed nodes.

65. (NEW) The method of claim 63, wherein determining the current context further comprises:

determining a proximity of nodes in other braches to the given node; and
ascertaining one or more of the attributes of the proximate nodes.

66. (NEW) The method of claim 60, wherein the attributes are one or more parameters selected from a group consisting of a unique identifier, a name, a geographic entity, a latitude, a longitude, a relative importance, a contextual parent, an entity unique identifier, a location unique identifier, a uniform resource locator, a source, a start date, an end date, a modification date, a status date, a resource, a service, a time, a time zone, a privacy level and a cellular phone setting.

67. (NEW) The method of claim 29, wherein each location type defines an abstraction of the one or more different locations associated with the particular location type.